## Form BIO: Biomass Systems **Utah Renewable Energy Systems Tax Credit Investment Tax Credit Certification**

This form must be completed by all applicants seeking Utah tax credits for a biomass system that produces electricity and has a generating capacity of less than 660 kilowatts, or that produces and uses fuel from biomass.



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Social	Security Number or Federa	l ID Number			
Does	Your biomass system produc	ce electricity?			
	Yes	No			
	If yes, complete the questi	ons below.			
	What is the fuel source for	your system?			
	Landfill methane		Animal was	te methane	
	Sewage treatment methane	2	Wood / plan	t material	
	Other (explain)		•		
	What kind of generator sys	stem does your sy	stem use?		
	Piston engine		Number of e	engines	
	Engine make & model				
	Combustion turbine		Number of t	urbines	
	Turbine make & model				
	Steam turbine		Number of t	urbines	
	Turbine make & model				
	The system produces elect	ricity for:			
	On-site use	Sale t	o utility	Both	
	Total system capacity (kW	<b>'</b> )			
	Does your biomass energy	system feed pow	er into a buildi	ng's electrical system?	
	If not, explain how	the power is used	ŀ		
	Is the building for which y	ou are providing p	power connect	ed to a utility's electrical grid?	
	Yes (A	pplication must in	clude intercon	nection agreement; see instructi	ons)
	No				
	If no, how far is th	e building from th	e nearest utilit	y power lines?	

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No

Volts

Amps per battery

Does your biomass energy system include batteries?

If yes, enter the make and model

Number of batteries

Yes

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If your system does not produce electricity, describe below the biomass source used, the kind of fuel produced, and how that fuel is used by the taxpayer. (See directions for eligible sources.)

Total cost of your biomass system					
Total eligible biomass systems equipment co	ost (see instructions)				
Total eligible biomass installation and other	costs (see instructions)				
Total eligible biomass system cost (sum of e	quipment, installation,	and other)			
Enter amount of credit claimed for the bioma	ass system above (see in	nstructions)			
Project Designer Information (see instruction	ns)				
Name					
Street Address					
Town/City	State				
Phone					
Contractor License Number	Licen	se Type			
Designer is (check all that apply):	A Utah Professional	Engineer			
	A Certified Energy N	<b>Manager</b>			
I certify that I designed the biomass so of this application. I further certify the	•				
Signature		Date			
System Certification (see instructions) Name of Certifier					
Street Address					
Town/City	State	Zip			
Phone					
Contractor or Inspector License Num	ıber				
License Type					
this application. I further certify that safe system and that it conforms with	I certify that I have inspected the biomass system described on Forms A and BIO of this application. I further certify that upon inspecting this system I have found it to be safe system and that it conforms with the National Electric Code and with all other building and safety codes applicable within the state of Utah at this time.				

Date

Signature

## **Instructions for Form BIO: Biomass Systems**

This form is to be used for biomass energy systems that produce electricity and that have a generating capacity of less than 660 kilowatts. It is also used for systems that both produce and use fuel from biomass. Utah Code (UC 59-12-102) defines what forms of biomass energy are eligible for Utah renewable energy tax credits. Biomass is defined as any of the following if used as the primary source of energy for fuel or electricity:

- 1. Material from a plant or tree,
- 2. Slash and brush from forests and woodlands,
- 3. Animal waste,
- 4. Methane produced either at a landfill or as a byproduct of the treatment of wastewater,
- 5. Aquatic plants,
- 6. Agricultural products, and
- 7. Other organic matter that is available on a renewable basis.

However, the following are not considered to be eligible biomass energy sources:

- 1. Black liquor,
- 2. Treated woods, and
- 3. Biomass from municipal solid waste.

<u>Total eligible biomass systems equipment cost</u>: Eligible costs for biomass systems do not include the cost of equipment for the growing or harvesting of biomass materials, nor the cost of storage of biomass materials at a location separate from the facility at which electricity or fuel will be produced. For biomass systems that produce fuels, eligible system costs include the costs of equipment to receive, handle, collect, condition, store, process, and convert biomass materials into fuels at the processing site. For biomass systems that use biomass as the sole fuel for producing electricity, the following are eligible equipment costs:

- 1. Systems for collecting and transporting methane from a digester or landfill,
- 2. On-site systems or facilities for collecting biomass that will be used in a digester or boiler,
- 3. Equipment necessary to prepare biomass for use as a fuel (e.g., driers, chippers),
- 4. Engines or turbines used to power generators,
- 5. Generators,
- 6. Inverters, and
- 7. Wiring and disconnects from the generator to the inverter and from the inverter to the point of interconnection with the AC panel.

Batteries and charge controllers are eligible only for systems that produce electricity, are not connected to a utility's electrical grid, and are more than one-quarter mile from an electric utility's service lines.

Total eligible biomass installation and other costs: Design and installation costs for a

biomass system are eligible but only for the components of the system that would not normally be associated with a conventional energy system. Eligible costs for biomass systems do not include the cost of labor for the growing or harvesting of biomass materials, nor the cost of storing biomass materials at a location separate from the facility at which electricity or fuel will be produced. It also does not include the cost of transporting biomass materials to the facility where electricity or fuel will be produced.

Enter amount of credit claimed for the geothermal electric system above: To calculate the amount of credit to claim, begin with the total eligible costs entered immediately above. Subtract out the amount of any grants or rebates you may have received for installing the system. (Note: Do not subtract any federal tax credit amounts you received or may receive.) For a residential system, multiply this amount by 0.25. If this amount is less than \$2,000, enter this number, otherwise enter \$2,000. For a commercial system, multiply total eligible costs (minus grants or rebates) by 0.10. If this amount is less than \$50,000, enter this number, otherwise enter \$50,000.

<u>Project Designer Information</u>: To be eligible for tax credits, a biomass system must have been designed by one of the following:

- 1. A Professional Engineer licensed in Utah; or
- 2. A person designated as a "Certified Energy Manager" by the Association of Energy Engineers.

The system designer must certify that he/she has the appropriate credentials and that these requirements have been met by signing Form BIO where indicated.

<u>System Certification</u>: To be eligible for a residential or commercial tax credit, a biomass system must be certified for safety by either

- 1. A professional electrician licensed by the State of Utah;
- 2. A county or municipal building inspector licensed by the State of Utah. The system certification section must be completed and signed by a person in one of the two categories above in order for you to receive a tax credit for a biomass system.

System Documentation: Form A lists general documentation requirements that apply to all renewable energy systems. In addition to those requirements, documentation submitted for a grid-connected biomass system generating electricity must meet all interconnection standards of the local electrical utility and must include a copy of an interconnection or net metering agreement with the local electrical utility with an application for a tax credit.